



Sanjay Ghodawat University, Kolhapur

2017-18

Established as State Private University under Govt. of Maharashtra. Act No XL, 2017

FY M. Tech

School of Technology

Semester II

EES 506

Embedded Linux

Max Marks: 100

May 2018

End Semester Examination (ESE)

Time: 3 Hrs.

25th May 2018

Instructions for Students: 1) Use of non-programmable calculator is allowed
10:30 AM to 1:30 PM 2) All questions are compulsory

Q1	Attempt any two of the following	Marks	COs
a)	What is Embedded Linux? How the Embedded Linux Systems are classified?	08	CO1
b)	List and explain various development tools available for Embedded Linux.	08	CO1
c)	Explain in detail different types of host/target development setups?	08	CO1
Q2	Attempt any two of the following		
a)	Explain with block diagram, the construction of Composite Kernel image.	09	CO2
b)	List and explain various available bootloaders.	09	CO2
c)	What is kernel source repository? Give the significance of kernel versions	09	CO2
Q3	Attempt any two of the following		
a)	What is a filesystem? Explain use of fdisk utility for partitioning.	08	CO3
b)	Write a note on loadable modules. Also explain device driver architecture?	08	CO3
c)	Explain the following module utilities a. insmod b. rmmod c. depmod	08	CO3
Q4	Attempt any two of the following		
a)	Explain various binary utilities.	08	CO4
b)	What are various kernel debugging techniques?	08	CO4
c)	Explain Hardware Assisted Debugging. Also write a note on SDRAM basics.	08	CO4

- Q5** Attempt any two of the following
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|----|---|----|-----|
| a) | Explain what is a Shell with example? Why to use Shell? What are different types of Shells? | 08 | CO5 |
| b) | Explain the use of Pipes and Redirection with example. | 08 | CO5 |
| c) | Explain with example how commands can be scheduled. Also discuss the steps for killing a process. | 08 | CO5 |
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- Q6** Attempt any two of the following
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|----|---|----|-----|
| a) | Write a note on Control using Parallel Port. What are the drawbacks of Standard Parallel Port Control with Port I/O? | 09 | CO6 |
| b) | Explain the important aspects of USB interfacing. Explain the significance of USB interfacing in the Project Trailblazer. | 09 | CO6 |
| c) | How to read serial port signals using getSerialSignal? Also write the steps to compile and test getSerialSignal. | 09 | CO6 |
